Title (en)

CYCLIN DEPENDENT KINASE INHIBITORS

Title (de)

CYCLIN-ABHÄNGIGE KINASE INHIBITOREN

Title (fr)

INHIBITEURS DE KINASE DEPENDANT DES CYCLINES

Publication

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Application

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Abstract (en)

[origin: WO9950251A2] A range is disclosed of pyrimidine derivatives (I) which can act as inhibitors of cyclin dependent kinases (CDK's) and which thereby can provide useful therapeutic compounds for use in treatment of tumours or other cell proliferation disorders. The compounds of this invention bind to CDK molecules in a manner that appears to differ from that of known CDK inhibitors such as olomoucine and roscovitine. In formula (I), X is O, S or CHRx where Rx is H or C1-4 alkyl; D is H or NZ1Z2 where Z1 and Z2 are each independently H, C1-4 alkyl, C1-4 hydroxyalkyl, optionally substituted aryl or optionally substituted aralkyl; A is selected from H, C1-4 alkyl, C1-4 alkoxy, hydroxy, CH2(CH2)nOH (n=1-4), and NRa1Ra2 where Ra1 and Ra2 are each independently H or C1-4 alkyl; Y is or includes an optionally substituted 4- to 8-membered carbocyclic or heterocyclic ring; D' is H or NZ3Z4 where Z3 and Z4 are each independently H, C1-4 alkyl, C1-4 hydroxyalkyl, optionally substituted aryl or optionally-substituted aralkyl; E is selected from NO, NO2, N=N-Ar where Ar is an optionally substituted aryl or optionally substituted aralkyl, NRe1Re2 or Nre1Nre2Re3 (Re1, Re2 and Re3 each being independently H, C1-4 alkyl, C1-4 hydroxyalkyl, an optionally substituted aryl or an optionally substituted aralkyl), C(Re)=U (Re being hydrogen, C1-4 alkyl or substituted alkyl, e.g. hydroxyalkyl, or an unsubstituted or substituted aryl or aralkyl, e.g. benzyl, and U being selected from O, Nre', NORe' and N-NRe'Re'' where Re' and Re'' are each independently H, C1-4 alkyl or CONH2), T, CH2T, CHT2 and CT3, where T is a halide I, Br, Cl or F.

IPC 1-7

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